

Management for Profit.

—R. C. AIKIN.

The month of June might be termed the clover month. Red, white, alsike and alfalfa clovers come mainly in the month of June. This article will, I suppose, appear in the June issue, and if so, will come just as we are preparing for our honey flow.

Could I have everything to my liking, I would want every colony so populous, that when active and honey coming in there would be bees enough to work the brood chamber and at least one whole super, and yet half the bees be afield. Such a colony, if the weather is warm, will occupy the entire hive including every part of the super all night long, and usually will cluster out through the night. The first super ought to be on about a week before the flow opens, and all colonies intended for section work have six to eight full combs of brood. If all the colonies cannot be so, better take bees and brood from those not strong and add to those not quite strong enough. Better run only half of the colonies for surplus and have them so strong that they can do good super work in a light to fair flow, than to have all trying to work supers and cannot. Almost any reasonable colony will work sections in a good flow, but in a poor flow even an average colony will not work sections.

To illustrate the necessity of strong colonies for profit, let me make some estimates. Suppose the average yield for 10 years to be 50 pounds. Add to the 50 pounds 25 pounds for stores in the brood chamber—total to store of 75 pounds.

I have found that here in the alfalfa flows, when a colony brings in four pounds a day from morning to night, during the night it will shrink about one pound. Quite extended observations have shown me that the nectar here, gathered during the twelve working hours, will evaporate very nearly $\frac{1}{2}$ during the next twelve hours. I think it entirely safe to say that the nectar evaporates fully $\frac{1}{2}$ and I think some of it $\frac{1}{2}$, if fully ripened.

To gather a total of 75 pounds of honey, means that at least 115 to 125 pounds of nectar has been brought in. A daily gain of three pounds for forty days would approximate the above estimate. Remember this is for an uninterrupted flow, while usually there are some days that nothing is brought in.

Now I have found that if I have my

hives full of brood, the bees so abundant that they must occupy the super or go on the outside, and an average gain of 2½ to 3 pounds of raw nectar per day for about forty days, that I can obtain pretty fair super work; but any colony less than that will yield me little or no surplus. I think in all average locations a 50 pound surplus will be counted good. In a term of 10 years several would be below the average, and at least one or two very poor. If such strong colonies are necessary in an average year, what must be the result in those years below the average? I find that in the poor years, to obtain a surplus, I must have just about twice the strength of colony required in average to good years.

The only way then to get a surplus the poorer years, is by having the colonies strong. So firm am I in this belief, that instead of practicing natural swarming I discourage it—or rather prevent it—and if a colony is strong enough to swarm, I keep it so, and very frequently add to it rather than divide. Such a procedure will give a surplus when ordinary methods fail, and in good years results in fine yields.

My method of holding such strong colonies together, is the unqueening method. I know of no other method that will accomplish the end so successfully, though similar results may be obtained by hiving swarms in contracted hives, and by doubling swarms or weak colonies. I have had good results by driving from boxes and uniting in one working colony the bees from two or more, and in the same way uniting the forces of two or more ordinary hives. Whatever be the method of procedure, always keep in mind the fact that a colony left to swarm and follow their instincts, will not average good work in supers. Just as surely as it is necessary to prune the tree or vine to get fruit, restrain and control the cow and horse, making them subject to our use, just as surely is it necessary to restrain and regulate the bee if we are to manage them to our profit.

If using ordinary frames, and these frames are to be handled or changed about, it is a great help and satisfaction to have them filled with brood from end to end. Where the entrance is at the end of the frame as it usually is, they usually fill the front end of the comb with brood, while the rear part holds the honey. The brood is next the entrance and the honey back of it. Thus we frequently find brood in every comb, or nearly so, while there is not more brood than would fill half the combs. To get the combs solid full of brood I sometimes turn the combs the other end foremost, placing the brood end behind and